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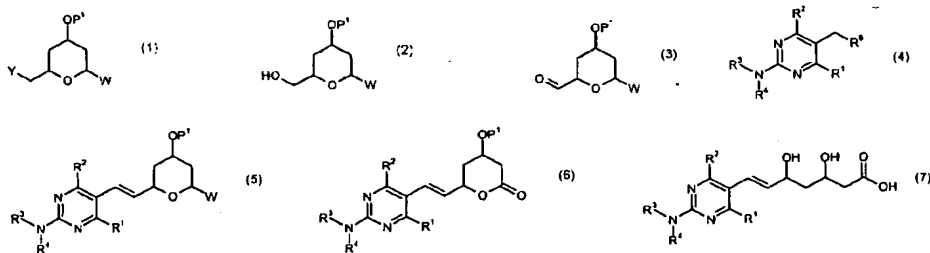
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(54) Title: PROCESS AND INTERMEDIATE COMPOUNDS USEFUL IN THE PREPARATION OF STATINS, PARTICULARLY ROSUVASTATIN



(57) Abstract: There is provided a process for the preparation of a compound of formula (7): formula (7) wherein R¹ represents an alkyl group; R² represents an aryl group; R³ represents hydrogen, a protecting group or an alkyl group; and R⁴ represents hydrogen, a protecting group or a SO₂R⁵ group where R⁵ is an alkyl group, which comprises a) hydroxylating a compound of formula (1): formula (1) wherein Y represents a halo group; P¹ represents hydrogen or a protecting group, and W represents =O or -OP², in which P² represents hydrogen or a protecting group, to give a compound of formula (2): formula (2) b) oxidising the compound of formula (2) to give a compound of formula (3): formula (3) c) coupling the compound of formula (3) with a compound of formula (4): formula (4) wherein R³ represents a protecting group or an alkyl group; R⁴ represents a protecting group or a SO₂R⁵ group where R⁵ is an alkyl group; and R⁶ represents (PR⁷R⁸)⁺X⁻ or P(=O)R⁷R⁸ in which X is an anion and R⁷ and R⁸ each independently is an alkyl, aryl, alkoxy or aryloxy group, to give a compound of formula (5): formula (5) wherein R³ represents a protecting group or an alkyl group; and R⁴ represents a protecting group or a SO₂R⁵ group where R⁵ is an alkyl group, d) when W represents -OP², removing any P² protecting group and oxidising the compound of formula (5) to give a compound of formula (6): formula (6) and e) subjecting the compound of formula (5) when W represents =O, or compound of formula (6) to ring-opening, removal of any P¹ protecting groups, and optionally removing any additional protecting groups to give a compound of formula (7).



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